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TCS-80738/65
June 1965

PHOTOGRAPHIC INTERPRETATION REPORT

LENINGRAD AMM/SAM LAUNCH COMPLEXES, USSR CHANGES AND ADDITIONS

25X1D [redacted]

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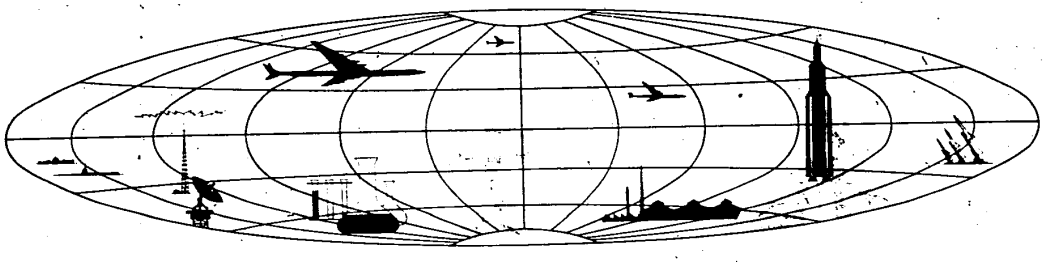

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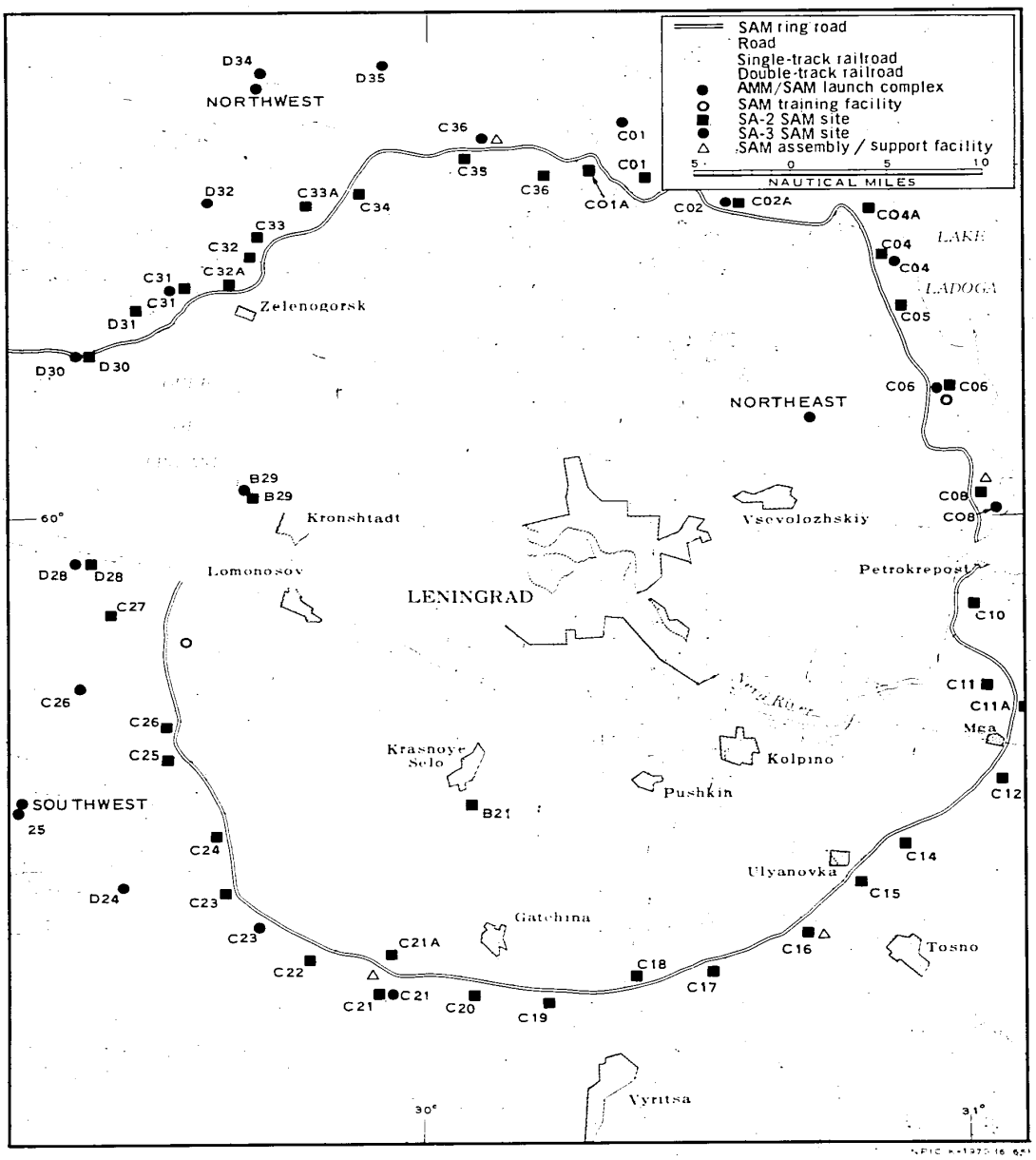

FIGURE 1. AMM SAM COMPLEXES AND SAM INSTALLATIONS NEAR LENINGRAD, USSR.

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INTRODUCTION

This report was prepared in response to CIA/ORR requirement C-RR5-82,366 and supplements 1 and 2, for a description of changes and new activity at the 3 Leningrad complexes since previous coverage, for specific mensuration, and for a description and mensuration of a newly observed radar facility located immediately north of Leningrad AMM/SAM Training Facility C06.

The Leningrad Northwest, Northeast, and Southwest AMM/SAM Launch Complexes (Figure 1) (formerly designated "Probable AMM Launch Complexes") were covered by good-quality, stereo, KH-4 KEYHOLE photography [redacted] The Northwest Complex was observed on clear, good-quality, relatively larger-scale, but nonstereo [redacted] (Figure 2). Snow conditions in varying degrees were prevalent during these periods. The [redacted] photography provides the first usable coverage of the Leningrad area since that of [redacted] which was included in a previous NPIC report. 1/

At all 3 complexes on the [redacted] photography activity is evidenced by vehicular movement, tracks in the snow, and new construction.

NORTHWEST AMM/SAM LAUNCH COMPLEX

The Northwest Complex [redacted] is located at 60-27-00N 29-44-10E, 37 nautical miles (nm) northwest of Leningrad.

Significant new developments revealed by [redacted] photography of the Northwest Complex include: erectors/launchers at launch points of Launch Sites C, D, and E; activity between the missile-ready buildings and the launch points of several launch positions; vehicles/equipment on launch site perimeter roads; unidentified radar and vehicles/equipment at the Electronic Site (formerly called "Unidentified Facility") at the southeast corner of the complex; a vehicle park northwest of Launch Site A.

Considering the [redacted] coverage of the Northwest Complex chronologically it was first covered twice by KH-4 KEYHOLE photography of [redacted] (not shown graphically in this report). Trees were cleared from within Launch Sites C, D, and E subsequent to [redacted] and trees remain standing within Sites A and B. Each of the launch site control buildings appears mounded; however, this cannot be confirmed because of snow cover. Those at Launch Sites A, D, and E were not mounded when observed on larger-scale photography of [redacted]

Snow coverage makes possible the detection of probable equipment at the launch points of Launch Sites C, D, and E. Vehicles/equipment were observed on the perimeter road adjacent to the missile-ready buildings at Launch Positions D3 and D6 and each of the launch positions of Launch Site E.

Two vehicles were observed on the perimeter road near Launch Position D1 and 1 on the approach to the Launch Site D control bunker on [redacted] photography but were not at these locations when the area was observed on [redacted] coverage. An unidentified object, visible portion measuring approximately [redacted] was observed protruding from the missile-ready building and extending toward the launch point at Launch Position C3.

The ramp-served, mounded positions at the Electronic Site located at the southeast corner of the complex are designated 1 through 5 in a clockwise direction starting with the position east of the site entrance. Unidentified equipment not present in [redacted] was

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situated atop the mound at Position 4 when observed on the [redacted] photography and probably at Positions 1 and 3. The centrally located revetted position, under construction in [redacted] appeared completed and possibly occupied.

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The larger-scale photography of [redacted] although non-stereo, revealed details not previously discernible. Erectors/launchers are observed at all of the launch points within Launch Sites C and E (Figures 3 and 5) and at least 2 of the positions within Launch Site D (Figure 4). No similar equipment is situated within Launch Sites A and B. Configuration of this equipment cannot be determined definitely from current photography. The erector/launcher appears to have a substantial undercarriage supporting a probable rail or beam that extends approximately [redacted] beyond its base. Measurements obtained of several of these erectors/launchers indicate an average, overall length of [redacted] This equipment closely equates in appearance and dimensions to "probable launchers" observed on photography of [redacted] at certain positions of Launch Sites 3 and 4, Launch Complex A, at Sary-Shagan Antimissile Test Center (SSATC) 2/, particularly at Launch Positions 1, 3, and 4 at Launch Site 3 and at Launch Position 6 at Launch Site 4. The erectors/launchers at the Leningrad Northwest AMM/SAM Launch Complex do not equate to those associated with the curved, missile-ready buildings at Launch Sites 5 and 6 of Launch Complex A, SSATC.

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A wedge-shaped pattern in the snow extends from 1 end of each missile-ready building to the launch points within Launch Site D (Figure 4) and at some of the launch positions within Launch Site E (Figure 5). The area forming these patterns indicates that probably 2 of the 5 bays in the missile-ready buildings and their associated service system to the launch points are active. No identifiable features are located within these wedge-shaped patterns.

[redacted] object observed on the [redacted] coverage at Launch Position C3 is not present on the [redacted] photography.

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Snow removal is apparent along the perimeter roads and within each launch position of Launch Sites C, D, and E.

Vehicles/equipment are parked along the perimeter roads opposite each missile-ready building of Launch Sites D and E and at Launch Position C6 (Figures 3, 4, and 5). Identification of the vehicles/equipment is not possible on current photography. Four of those parked at Launch Position C6 and 3 at E4 have van-like appearances. Single pieces of equipment parked on the perimeter road near 1 end of some of the missile-ready buildings -- for example at Launch Positions D3, D4, D5 (Figure 4) -- strongly resemble the erectors/launchers.

Additional vehicles/equipment are parked near the entrances to the launch site control bunkers at Sites C, D, and E. One corner of the previously observed completely mounded site control building at Launch Site B is now uncovered.

The larger-scale photography reveals 60 vehicles/equipment, possibly canvas covered, each measuring approximately [redacted] parked in 4 rows in a clearing northwest of Launch Site A (Figure 6). There was no activity at this location in [redacted] and 4 buildings were observed there on photography of [redacted] A review of the earlier smaller-scale photography reveals that the vehicles/equipment were not at that location in [redacted] and that vehicles/equipment were there in [redacted] although not identifiable as such on that photography. A fifth building was added to the south of the row of 4 between [redacted]

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Unidentified radar is situated atop 3 of the ramp-served mounds, Positions 1, 3, and 4 of the Electronic Site at the southeast corner of the complex (Figure 7). The equipment at Position 4 was not present in [redacted] Negation of equipment at Positions 1 and 3 cannot be confirmed on the [redacted] photography. At least 2 vans and possibly additional equipment are located at the base of the mounds at Positions 1 and 3, and 3 vans are on the mound with the radar at Position 4, as observed on the [redacted] photography. A possible generator is located at the base of Position 4.

Identification as to the type of radar at these positions cannot be accomplished on the non-stereo photography of [redacted] Analysis is further complicated by the fact that the shadow the radar casts extends down the side of the mound. Antennas may be van-mounted, but their configurations or arrangement cannot be determined.

The centrally located, drive-through, revetted position under construction in [redacted] now appears completed. This position contains a building measuring 35 by 25 feet, 1 smaller structure, at least 3 vans, a probable generator, and additional small, unidentified equipment.

Ground scars in the snow emanate from the vicinity of the central revetted area and extend to the base of the mounds at Positions 1 and 3, and another is visible extending to the vicinity of Launch Site C. Another scar extends from Position 1 in the direction of the Launch Area and terminates near the security fencing of the complex proper.

No activity is apparent at the Complex Control Center or the structures at the outrigger positions northeast and southwest of the Control Center. Although the area is snow covered, it can be determined that the northeast structure remains incomplete and that the conduit leading from the control center to the southwest position still is incomplete.

Vehicular tracks are evident throughout the Support and Barracks Area (Figure 8). At least 20 miscellaneous unidentified vehicles are parked on the apron south of the largest building in the Support Area. Unidentified probable storage is located in an area east and in another area immediately north of this building.

Smaller-scale photography of [redacted] not shown graphically, revealed no significant changes at the Northwest Complex since [redacted]

Some changes were observed in the positioning of vehicles along the perimeter road of Launch Site E.

A greater portion of the area in front of the missile-ready building at Launch Position E6 is darker in tone than at comparable areas of the other launch positions at Launch Sites C, D, and E. This appearance may have been created by the melting of snow or by increased activity. At the majority of these positions the activity is again confined to 1 side of the area extending from the missile-ready buildings to the launch points.

The 3 vans observed on the mound at Position 4 of the Electronic Site on photography of [redacted] were not on the mound with the Unidentified Radar on [redacted]

LENINGRAD NORTHEAST AMM/SAM LAUNCH COMPLEX

The Northeast Complex [redacted] is located at 60-05-20N 30-44-00E, 16 nm northeast of Leningrad.

This complex was observed on KH-4 KEYHOLE photography of [redacted]

Significant new developments at the Northeast Complex, since [redacted] revealed by photography of [redacted] (not shown graphically), include: construction of a drive-through revetted position located between the Complex Control Center and the high mound

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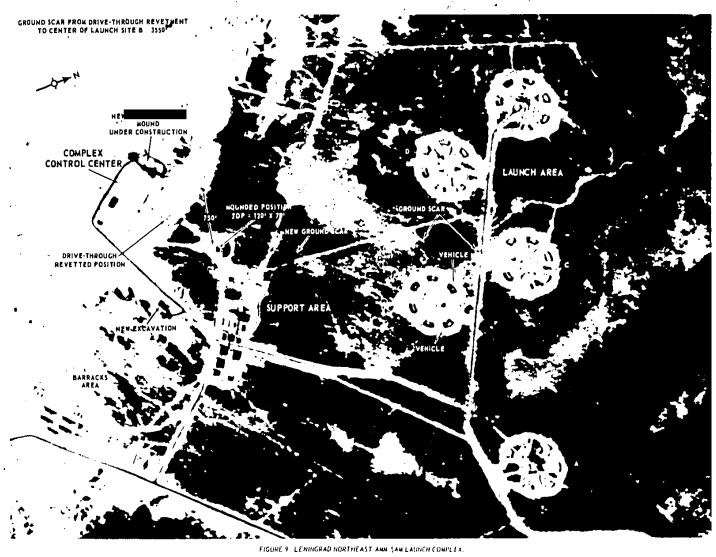

FIGURE 9 LENINGRAD NORTHEAST ANM 5AW LAUNCH COMPLEX.

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(constructed during [redacted] preparation of a levelled area atop the high mound; a new ground scar extending from Launch Site B to the drive-through revetted position. This position is comparable to that centrally located within the Electronic Site at the Leningrad Northwest AMM/SAM Launch Complex.

25X1D Two vehicles observed on [redacted] photography on the perimeter road of Launch Site A and 1 on the Launch Area main road, near the entrance to Site C, were not present when the

25X1D complex was observed on the [redacted] coverage.

25X1D Further interpretation of the status of the Northeast Complex as observed on the [redacted]

25X1D [redacted] photography is precluded by snow cover.

25X1D New activity observed at this complex on photography of [redacted] (Figure 9) includes: a mound under construction immediately northwest of the Complex Control Center; ground scarring and an excavation just east of the road leading southwest from the Support Area; vehicles/pieces of equipment along the perimeter roads of Launch Sites A, B, C, and E. The level area atop the high mounded position may be enclosed by a low wall. A newly-observed ground scar extends from Launch Site C in the direction of the Electronic Site, under construction in the vicinity of the Complex Control Center.

Construction status of the launch sites is undetermined.

There are no apparent changes in the Support and Barracks Areas at the Northeast Complex.

LENINGRAD SOUTHWEST AMM/SAM LAUNCH COMPLEX

25X1A The Southwest Complex [redacted] is located at 59-43-00N 29-18-30E, 33 nm southwest of Leningrad.

This complex was observed on KH-4 KEY-

25X1D HOLE photography of [redacted]

25X1D Photography of [redacted] is shown graphically (Figures 10 and 11).

Significant changes and additions observed at the Southwest Complex since [redacted] include: an Electronic Site under construction southwest of the Complex Control Center; ground scars in the snow extending from the Electronic Site toward Launch Sites B, D and E; an extension, under construction, of the building near the southwest corner of the Control Center; vehicles/pieces of equipment at some of the launch sites; activity of an undetermined nature, possibly new construction, on the western side of the largest building in the Support Area; removal of a small building in the Support Area; a new ground scar extending in a northeasterly direction from the substation just east of the Barracks Area.

The Electronic Site, under construction between the Complex Control Center and the Launch Area, consists of a drive-through, revetted position, comparable to those at the Northwest and Northeast Complexes, and 3 mounded positions under construction. An area cleared of trees since [redacted] is located midway between the Control Center and the northwest outrigger position (Figure 11). Distances from the drive-through revetted position to the centers of the launch sites are shown in Figure 10. The ground scars extending from the Electronic Site to Launch Sites B, D, and E are less clearly discernible on the [redacted] photography (Figure 10) than on [redacted] photography, not shown graphically in this report.

Construction progressed between [redacted] on an extension of the building near the southwest corner of the Control Center.

No change since [redacted] is detectable in the status of the Complex Control Center, the elevated structures at the outrigger positions northwest and southeast of the Control Center, or at the Probable Radar Position northeast of the Control Center. Two-thirds

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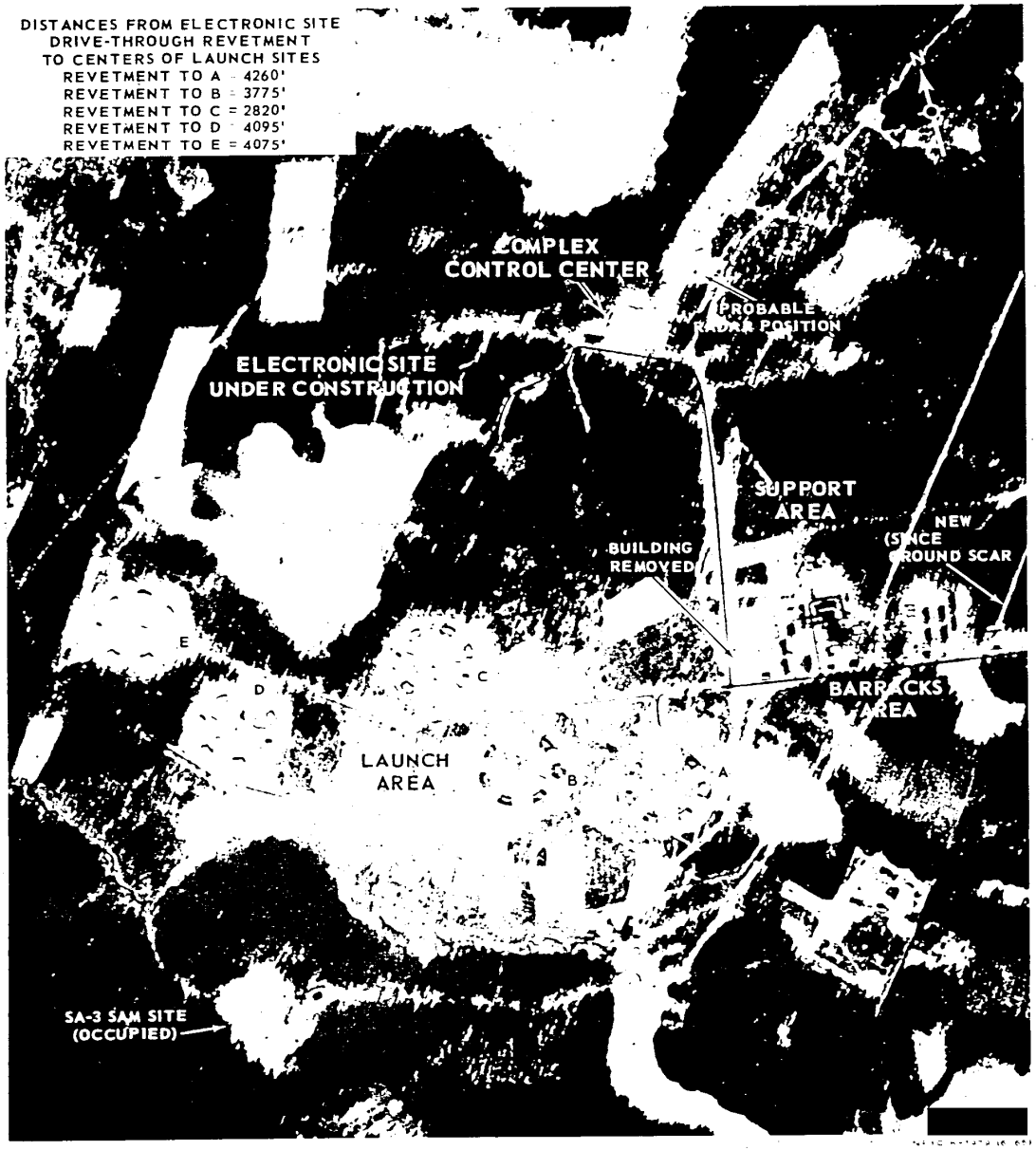

FIGURE 10. LENINGRAD SOUTHWEST AMM-SAM LAUNCH COMPLEX.

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25X1D of the surface of the elevated circular structure at the northwest outrigger position was clear of snow when observed on the [redacted] photography.

25X1D The majority of the roads throughout the complex were clear or partially clear of snow on [redacted] Probable vehicles pieces of equipment were observed on the perimeter roads of Launch Sites A, B, and D and possibly at Sites C and E.

25X1D The revetted launch positions of Launch Sites A, B, and D are possibly active, although their status cannot be determined on [redacted] KEYHOLE photography. The revetted launch positions of Sites C and E were snow covered.

The SA-3 SAM site (D25) located immediately south of the Southwest Complex was occupied.

OTHER FACILITIES

The AMM/SAM Training Site (previously termed "Possible AMM Training Facility") collocated immediately south of the Leningrad SAM Training Facility C06, at 60-07-10N 30-59-20E, was observed on KH-4 KEYHOLE photography of [redacted] (Figure 12) and again on [redacted] (Figure 13).

A tower-like structure, or crane, not previously observed, was located at the northeast corner of the curved, missile-ready building on [redacted] The area in front of the building was under snow cover. 25X1D

Activity of an undetermined nature, not present in [redacted] is located in a generally circular clearing approximately 1,500 feet northeast of the missile-ready building. 25X1D

A new radar facility is observed under construction immediately northwest of the SAM Training Facility. No evidence of this facility was present in [redacted] It is separately secured and road served from the Support Area. Six ramp-served mounds, in 2 rows of 3 each, are visible under snow cover within the secured area. A new building located in the Support Area is in a mid- to late stage of construction and was in an early construction stage in 25X1

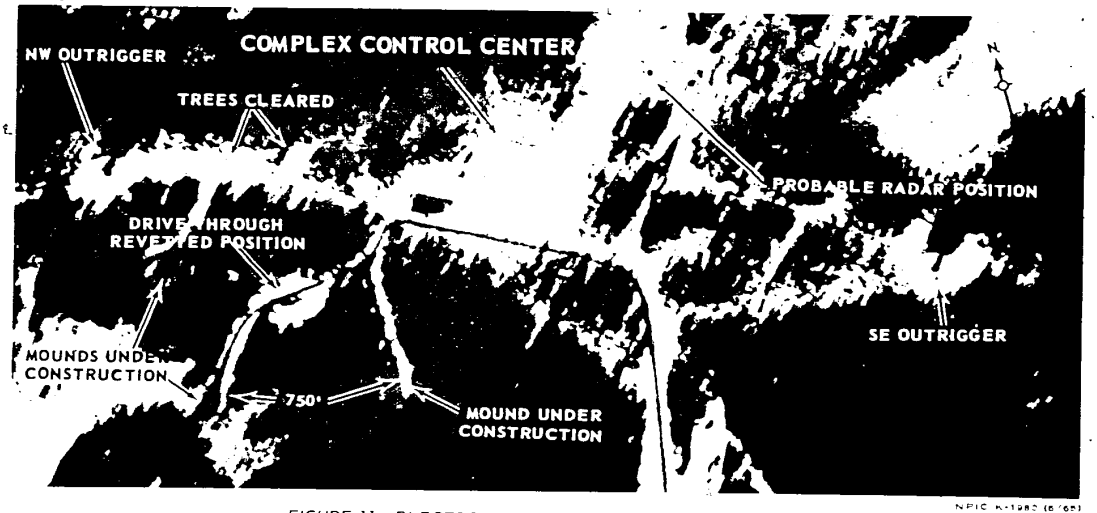

FIGURE 11. ELECTRONIC SITE U C, SOUTHWEST COMPLEX.

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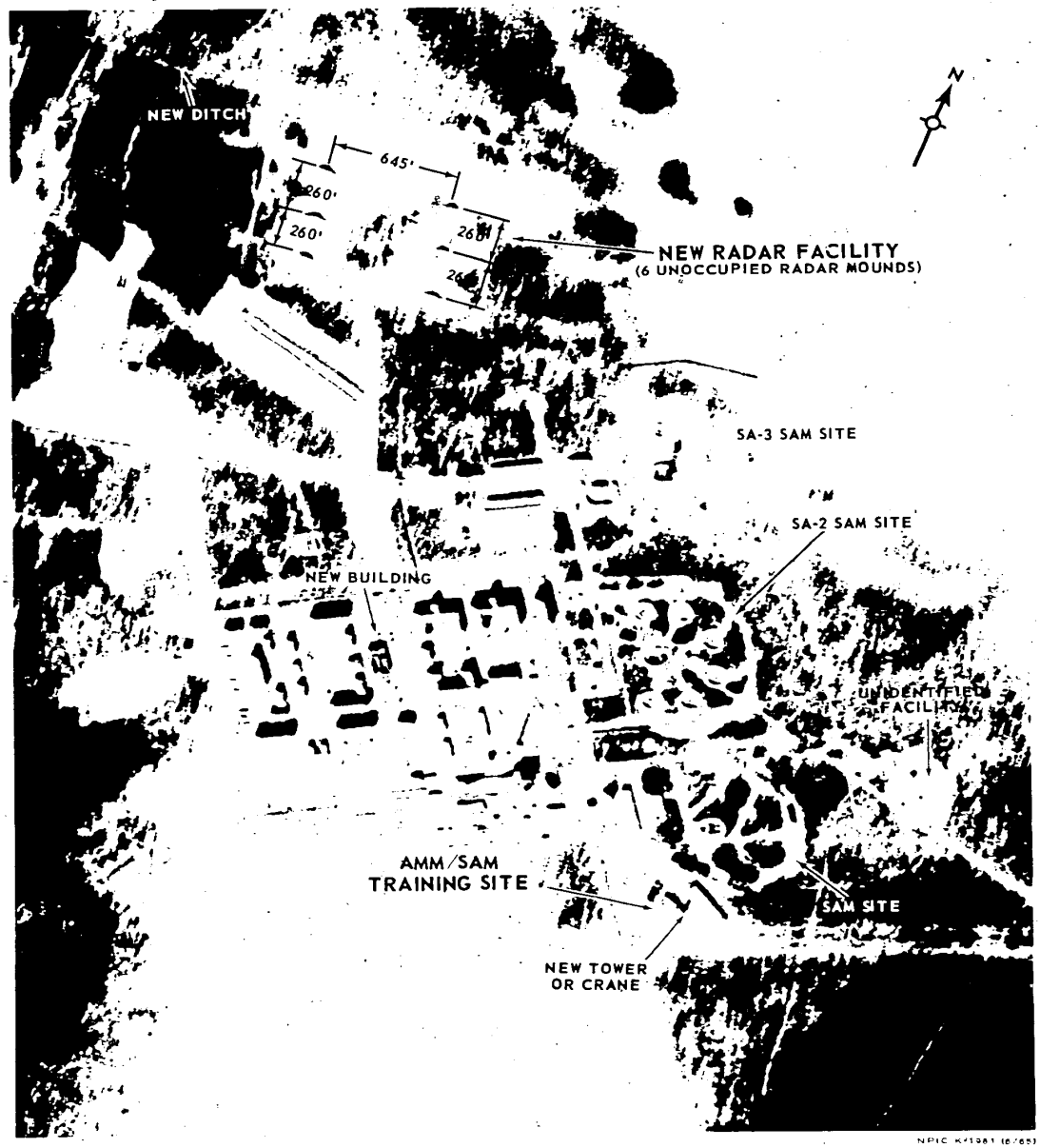

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FIGURE 12. LENINGRAD SAM TRAINING FACILITY C06, EARLY [redacted]

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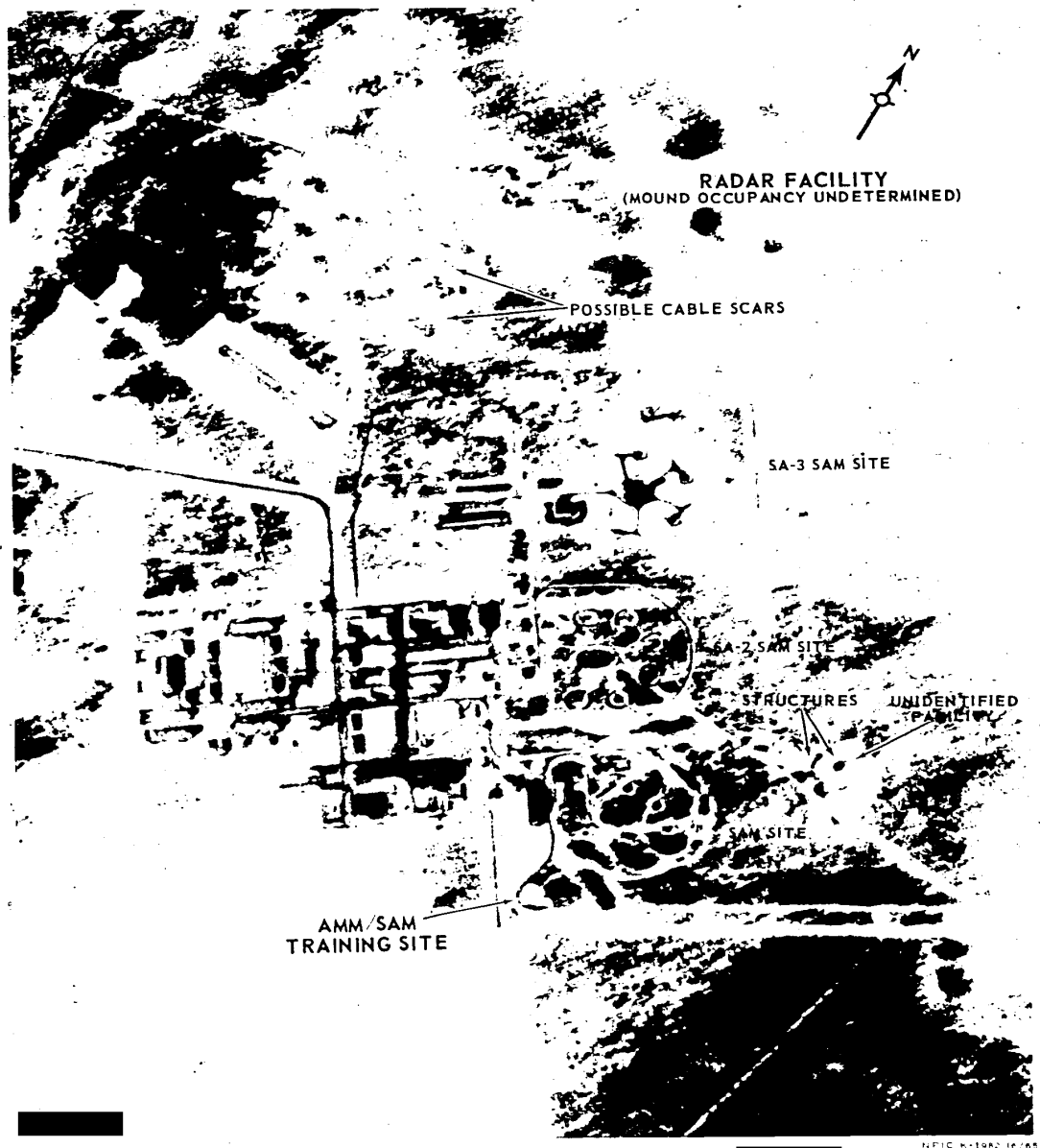

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FIGURE 13. LENINGRAD SAM TRAINING FACILITY C06, LATE [redacted]

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[redacted] A check of earlier KEYHOLE photography reveals that preparation for building construction was underway in [redacted]

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Roads throughout the entire facility were clear or partially clear of snow when observed on the [redacted] photography. Possible vehicles/equipment are located behind the missile-ready building at the AMM/SAM Training Site.

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At least 2 small structures are located in the unidentified facility 1,500 feet northeast. Vehicle tracks in the snow and small photographic scale preclude analysis of this activity.

Status of the radar facility at the northwest corner of the installation is undetermined. Linear scars in the snow between some of the mounds possibly are for cables.

Two possible additional radar positions are situated along the northern side of the road extending between the 2 northernmost mounds. Occupancy of the mounded positions is undetermined.

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REFERENCES

[redacted]

MAPS OR CHARTS

ACIC, US Air Target Chart, Series 200, Sheet 0103-24HL, 3d ed, Jun 62, scale 1:200,000 (SECRET)

ACIC, US Air Target Chart, Series 200, Sheet 0103-25HL, 3d ed, Jun 62, scale 1:200,000 (SECRET)

ACIC, US Air Target Chart, Series 200, Sheet 0153-4HL, 3d ed, May 63, scale 1:200,000 (SECRET)

ACIC, US Air Target Chart, Series 200, Sheet 0153-5HL, 2d ed, Oct 59, scale 1:200,000 (SECRET)

DOCUMENTS

1. NPIC, TCS-80047/65, *Probable AWW Launch Complexes, Leningrad, USSR, Changes and Additions* [redacted] Jan 65 (TOP SECRET CHESS RUFF)

2. NPIC, TCS-80219/65, *OIA, Part V, Mission 1015, 24-27 January 1965*, Feb 65 (TOP SECRET CHESS RUFF)

REQUIREMENT

CIA, C-RR5-82,366, with supplements 1 and 2

NPIC PROJECT

11208/65